REMARKS

In view of the following remarks, the Examiner is respectfully requested to allow Claims 1 - 20 and 22-26 the only claims pending and currently under examination in this application following entry of the above amendments.

Claim 19 has been amended to incorporate the subject matter of Claim 21. Consequently, Claim 21 has been cancelled. Accordingly no new matter has been added.

As no new matter has been added by way of this amendment made herein its entry is respectfully requested.

Claim Rejections - 35 U.S.C. § 102

Claims 19-25 have been rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Hacker et al. (U.S. Publication No. 2002/0002265).

According to the M.P.E.P § 2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim.

Claim 19 has been amended. Claim 19, and the claims dependent there from, are directed to a method of improving the adhesive characteristics of an adhesive composition that includes adding a solvent to a resist adhesive resin, wherein the solvent has a boiling point in the range of about 30°C to about 80° C. An element of Claim 19 as amended is that the adhesive composition excludes solvents having boiling points above about 80° C.

Hacker does not anticipate Claim 19 because Hacker does not teach an adhesive composition that excludes solvents having boiling points above about 80° C. Rather, Hacker discloses ethyl lactate as a representative solvent. See paragraph 18. As can be seen with reference to Exhibit A, ethyl lactate has a boiling point of about 155° C. Accordingly, Hacker

does not teach all the elements of the rejected claims and consequently does not anticipate the claimed invention. The Applicants, therefore, respectfully request that this rejection be withdrawn.

Claims 19 and 21-26 have been rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Uetani et al. (U.S. Publication No. 2001/0002265).

As set forth above, an element of Claim 19 is an adhesive composition that excludes solvents having boiling points above about 80° C.

Uetani does not anticipate Claim 19 because Uetani does not teach an adhesive composition that excludes solvents having boiling points above about 80° C. Rather, Uetani discloses ethyl lactate as a representative solvent. See paragraph 22. As can be seen with reference to Exhibit A, ethyl lactate has a boiling point of about 155° C. Accordingly, Uetani does not teach all the elements of the rejected claims and consequently does not anticipate the claimed invention. The Applicants, therefore, respectfully request that this rejection be withdrawn.

Claims 19 and 21-26 have been rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Teiichi et al. (WO 01/60938 and U.S. Publication No. 2003/0069331).

As set forth above, an element of Claim 19 is an adhesive composition that excludes solvents having boiling points above about 80° C.

Teiichi does not anticipate Claim 19 because Teiichi does not teach an adhesive composition that excludes solvents having boiling points above about 80° C. Rather, Teiichi discloses cyclohexanone as a representative solvent. See paragraph 131. As can be seen with reference to Exhibit B, cyclohexanone has a boiling point of about 155° C. Accordingly, Teiichi does not teach all the elements of the rejected claims and consequently does not anticipate the claimed invention. The Applicants, therefore, respectfully request that this rejection be withdrawn.

Claim Rejections - 35 U.S.C. § 103

Claims 15-26 have been rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Ruiz (U.S. Patent No. 5,406,694) in view of Teiichi et al.

According to the MPEP § 706.02 (j), to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Claim 15 is directed to a method of manufacturing a slider for a hard disk drive. The method includes the use of an adhesive to bond a ceramic material to a manufacturing tool, wherein an adhesive composition comprising a resist adhesive resin and a solvent, wherein the solvent has a boiling point in the range of about 30°C to about 80°C, is employed.

The Office acknowledges that Ruiz is deficient in that it does not teach or suggest using an adhesive that includes a solvent. The Office, therefore, relies on Teiichi to remedy the deficiencies of Ruiz. Specifically, the Office asserts that Teiichi discloses the use of a an epoxy resin as an adhesive wherein the resin includes a solvent. As a motivation to combine the references the Office indicates that one of skill in the art would be motivated to substitute the solvent including adhesive allegedly disclosed in Teiichi for the adhesive used in Ruiz, because of the "excellent heat and moisture resistance with no volatilization" properties.

The Applicants respectfully disagree and contend that the Office has not set forth a proper motivation to combine the references. Specifically, the properties relied upon by the Office as a motivation to combine the references are not due to the solvent in the adhesive, but rather are due to the particular epoxy resin that makes up the adhesive composition. For instance, according to the disclosure of Teiichi:

> for 48 hours. Further, it is preferred to use a phenolic resin which exhibits a weight loss by heating at 350° C. (temperature elevation rate: 5° C./min; atmosphere: nitrogen gas) of less than 5% by weight as measured by a thermogravimetric analyzer (TGA) because an amount of the volatilized components is suppressed during heating and processing, thereby improving the reliability of various properties such as a heat resistance and a moisture resistance, and contamination of the peripheral apparatuses due to the volatile components during operations including heating and processing can be reduced.
>
> **[0130]** In the adhesive composition of the present invention, excellent moisture absorption resistance can be obtained by using the low moisture absorption phenolic resin represented by the formula (I), excellent reflow crack resistance can be obtained by using an acrylic copolymer which contains a reactive group-containing monomer to form a suitable crosslinked structure, and excellent reflow crack resistance and heat resistance can be obtained by using an acrylic copolymer incompatible with the epoxy resin to form a definite islands-in-sea structure after being cured.

Therefore, as can be seen with reference to the above, it is not the solvent in the adhesive that gives it the "excellent heat and moisture resistance with no volatilization" properties, but rather the particular phenolic resin disclosed. Accordingly, using the motivation of the Office, at best one of skill in the art would be motivated to use the particular phenolic resins disclosed in Teiichi as part of the thermo-plastic temporary adhesive of Ruiz, and not a resist adhesive resin and a solvent as claimed by the Applicants. For this reason alone this rejection may be withdrawn.

Additionally, an element of Claim 15 is a resist adhesive resin that includes a solvent, that has a boiling point in the range of about 30° C to about 80° C. In relying on Teiichi to remedy the deficiencies of Ruiz the Office assumes that Teiichi teaches or suggests the use of a solvent that has a boiling point in the range of about 30° C to about 80° C. However, as set forth above, Teiichi discloses the use of cyclohexanone as a representative solvent, which has a boiling point of about 155° C. See paragraph 131. Accordingly, the Applicants maintain that the disclosure of a solvent that has a boiling point of 155° C is neither a teaching nor a suggestion of a solvent that has a boiling point in the range of about 30° C to about 80° C.

The Office, points out that acetone is also disclosed as one of solvents in Teiichi, which the Office asserts has a boiling point between about 30° C to about 80° C. However, the simple disclosure of one compound, i.e., acetone, that has a boiling point of 56° C, in a long laundry list of compounds that have boiling points outside of the range claimed by the Applicants, does not equate with a positive teaching or suggestion of the selection and use of a solvent that has a boiling point in the range of about 30° C to about 80° C.

According to M.P.E.P. § 2144.08, the fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness. Rather, the Federal Circuit has declined the rule that regardless of how broad, a disclosure of a chemical genus renders obvious any species that happens to fall within it. Therefore, in establishing a *prima facie* case of obviousness, Office personnel should determine whether one of ordinary skill in the relevant art would have been motivated to select the claimed species or subgenus from the disclosed prior art genus.

Here there is no motivation provided by Teiichi to select the clamed subgenus from the broad genus disclosed. Accordingly, to derive the Applicants' claimed solvent, one of skill in the art, in view of Teiichi, must "pick and choose" from Teiichi's long laundry list, a particular compound, i.e., acetone, with no guidance what so ever provided by Teiichi as to why a solvent with a boiling point between about 30° C to about 80° C should be preferred over those other solvents that do not. Teiichi simply does not give any guidance to the skilled artisan that would motivate one to select a solvent that would meet the Applicants claimed elements. Therefore, a *prima facie* case of obviousness has not been established because the recited combination fails to teach or suggest all the elements of the rejected claims, namely a resist adhesive resin that includes a solvent, that has a boiling point in the range of about 30° C to about 80° C.

With respect to Claim 19, and the claims dependent threon, as set forth above, an element of Claim 19 is an adhesive composition that excludes solvents having boiling points above about 80° C. Teiichi, however,does not teach an adhesive composition that excludes solvents having boiling points above about 80° C. Rather, Teiichi discloses cyclohexanone as a representative solvent, which has a boiling point of about 155° C. Accordingly, Teiichi does not teach or

suggest an adhesive composition that excludes solvents having boiling points above about 80° C. Therefore, Teiichi does not remedy the deficiencies of Ruiz and a *pima facie* case of obviousness has not been established.

Therefore, in view of the above, a *prima facie* case of obviousness has not been established because there is no motivation to combine the references in the manner suggested and even if one were to combine the references at most one would simply substitute the phenolic resin disclosed in Teiichi for the adhesive used in Ruiz. Additionally, a *prima facie* case of obviousness has not been established because the recited combination fails to teach or suggest all the elements of the rejected claims, namely a resist adhesive resin that includes a solvent, that has a boiling point in the range of about 30° C to about 80° C. For these reasons the Applicants respectfully request that this rejection be withdrawn.

Claims 1-5, 7-10, and 12-14 have been rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Ruiz in view of Teiichi et al. and further in view of Tanaka et al.

Claim 1 is directed to a method of bonding a ceramic material to a manufacturing tool. The method includes providing an adhesive composition comprising a resist adhesive resin and a solvent, wherein the solvent has a boiling point in the range of about 30°C to about 80°C; placing the adhesive composition onto a surface of the ceramic material; contacting the manufacturing tool with the adhesive composition on the surface of the ceramic material such that the tool and the ceramic material bond together; and subjecting the adhesive composition located between the tool and the ceramic material to conditions effective to substantially remove the solvent from the adhesive. Accordingly, an element of the rejected claims is a solvent that has a boiling point in the range of about 30° C to about 80° C.

As described above, the combination of Ruiz and Teiichi is deficient in that it does not teach or suggest a solvent that has a boiling point in the range of about 30° C to about 80° C. The recited combination does not teach or suggest this because Teiichi does not provide any guidance that would motivate one to select the particular sub group (i.e., solvents having a boiling point in the range of about 30° C to about 80° C) from the long laundry list of solvents provided in

Teiichi's disclosure. According to M.P.E.P. § 2144.08 a group containing a long list of generic compounds is insufficient to establish a *prima facie* case of obviousness with respect to a specific sub-group within that group.

Further, even if all the elements were to be taught, a *prima facie* case of obviousness has still not been established because there is no motivation to combine the references in the manner suggested. There is no motivation to combine the references in the manner suggested because using the motivation of the Office, at best one of skill in the art would be motivated to use the particular phenolic resins disclosed in Teiichi as part of the thermo-plastic temporary adhesive of Ruiz, and that is not what the Applicants are claiming as their invention.

As Tanaka was cited solely for its alleged disclosure of subjecting an adhesive containing a solvent to conditions effective to remove the solvent from the adhesive, it fails to remedy the deficiencies of Ruiz and Teiichi.

Therefore, a *prima facie* case of obviousness has not been established because the recited combination fails to teach or suggest all the elements of the rejected claims, namely a resist adhesive resin that includes a solvent, that has a boiling point in the range of about 30° C to about 80° C. Further, even if all the elements are taught, a *prima facie* case of obviousness has still not been established because the recited combination fails to provide the proper motivation to combine the references and even if one were to combine the references at most one would simply substitute the phenolic resin disclosed in Teiichi for the adhesive used in Ruiz. For these reasons the Applicants respectfully request that this rejection be withdrawn.

Claim 11 has been rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Ruiz, Teiichi, and Tanaka in view of Schafer (U.S. Patent No. 5,421,884).

Claim 11 depends from Claim 1. An element of Claim 1 is a solvent that has a boiling point in the range of about 30° C to about 80° C. As set forth above, the combination of Ruiz, Teiichi, and Tanaka is deficient in that it fails to teach or suggest all the elements of the rejected claims and further fails to provide a proper motivation to combine the references in the manner

suggested. As Schafer was cited solely for its alleged disclosure of a vacuum for use in removing a solvent from an adhesive it fails to remedy the deficiencies of Ruiz, Teiichi, and Tanaka. Accordingly, the Applicants contend that a *prima facie* case of obviousness has not been established and respectfully request that this rejection be withdrawn.

Claims 1, 5, 6, 8-10, and 12-14 have been rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Ruiz in view of Asami et al. and further in view of Tanaka et al.

As set forth above, an element of Claim 1 is a solvent that has a boiling point in the range of about 30° C to about 80° C. The Office acknowledges that Ruiz does not teach or suggest the use of an adhesive that includes a solvent. The Office therefore relies upon Asami to remedy the deficiencies of Ruiz. Asami, however, merely discloses a bonding composition that includes an organic solvent. There is no teaching or suggestion in Asami that the solvent has a boiling point in the range of about 30° C to about 80° C. As Tanaka was cited solely for its alleged disclosure of subjecting an adhesive containing a solvent to conditions effective to remove the solvent from the adhesive, it fails to remedy the deficiencies of Ruiz and Asami. Accordingly, the Applicants contend that a *prima facie* case of obviousness has not been established because he recited combination fails to teach all the elements of the rejected claims, namely, a solvent that has a boiling point in the range of about 30° C to about 80° C. Consequently, the Applicants respectfully request that this rejection be withdrawn.

CONCLUSION

In view of the amendments and remarks above, the Applicants respectfully submit that all of the claims are in condition for allowance, which action is requested.

Respectfully submitted,

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